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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/780,416	02/12/2001	Uwe Horn	2789-35	8129
23117	7590	07/03/2006	EXAMINER	
NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			SRIVASTAVA, VIVEK	
			ART UNIT	PAPER NUMBER
			2623	

DATE MAILED: 07/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/780,416

Applicant(s)

HORN ET AL.

Examiner

Vivek Srivastava

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 and 8-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-23 and 25-33 is/are rejected.
- 7) ☒ Claim(s) 24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f):
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Response to Arguments***

Applicants argue, "First, Sen does not describe video data of processing video data. The claims in this case all require video data processing.

The Examiner concurs. As are result, the forgoing action has been made non-final.

Second, Sen's TAS is below the application layer. The claims recite "processing of video data at a first application layer" which is higher than the claimed second layer. The TAS layer 209 is clearly not Sen's application layer 221 (see Figure 2).

The Examiner respectfully disagrees. Referring to figure 2, the Application layer is clearly above the second TAS layer. As a result, Applicants arguments are not persuasive.

Applicants argue "Third, there is no suggestion in Sen of video processing that includes "coding or transcoding of video data," as recited in the independent claims.

The Examiner concurs. As a result, the forgoing action has been made non-final.

Applicants argue "Fourth, Sen's link condition feedback 212 is not used in the same way as claimed in the present application. The Sen reference teaches a specific mechanism for dealing with a problem that occurs on the level of the transport layer."

Applicants arguments are moot in view of new grounds for rejection.

Applicants argue, "Fifth, coding or transcoding video data is not and could not be performed at the transport layer because the transport layer is not concerned with the contents of what is being transported. TAS 209 is not aware of any data transported in packets because the TAS 209 is not concerned with packet content, only with packet transport."

Applicants arguments are moot in view of a new grounds for rejection.

Applicant's argue, "Sixth the Sen reference specifically deals with TCP. But video streaming is typically not done over TCP because video streaming is delay sensitive. IN other words, an ARQ protocol like TCP is usually not suitable for video transmission. This is a further reason why objectively a skilled person would not consider applying the Sen's teachings to the processing of video data."

Applicants argue that video streaming is typically not done over TCP and an ARQ protocol like TCP is usually not to suitable for video transmission. The Examiner respectfully submits that "typically not" and "usually not" does not necessarily mean that it is definitely not done or is definitely not suitable. Unless Sen specifically teaches against transmitting video streams, Applicants arguments are not persuasive.

Applicants also traverse the obviousness rejection of claims 7 and 25 under 35 U.S.C. 103 based on Sen and the H.263 document. Applicant further argues “So the H.263 reference does suggest the claimed feedback between a second lower layer and the first application layer. Moreover, Sen and the H.263 reference objectively do not fit together as the Examiner proposes. Sen specifically deals with a problem at the transport layer, which has nothing to do with consideration in the H.263 reference.

Applicants arguments are moot in view of new grounds for rejection. See rejection below.

Regarding claims 13 and 21 describe a system with at least two independent bitstreams of video data, and one of the bitstreams is selected on the basis of the derived video control values. In contrast, Li describes using a base layer and one or more enhancement layers. As a consequence, there is always a base layer present. Consequently, there is no teaching of selecting between two or more independent video streams.

The Examiner respectfully submits that claims do not recite “selecting between two or more independent video streams” as argued by Applicants. The claims simply recites selecting one of bit streams which is met by Li , since one of the bitstreams are selected. In other words, the claim are recited does not preclude selecting one bitstream and not the other. As a result, Applicants arguments are not persuasive.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1 – 6, 8 – 11, 14 – 23, 25 - 29, 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sen et al (US 6,208,620) in view of Paul et al (US 6,148,005)**

**Regarding claims 1, 16 and 32,** Sen discloses a method for controlling a processing of data such that data may be transmitted over a connection in a communication network (see 'Internet 205' in fig 2), the connection employing a plurality of protocol layers (see 221, 209, 217, 213, 215 in fig 2).

Sen discloses processing data at the first layer i.e. application layer 221 and TAS layer 209 (see fig 2) and acquiring values of one or more transmission condition parameters indicative of transmission conditions of the network (see col 9 lines 8 – 17). In particular, Sen discloses "To get a fairly accurate predication, the value of N should be....The above predication algorithm assumes the presence of IS-705 RLP at the link layer and is a separate prediction scheme for predication channel conditions" (see col 9 lines 1 – 17). It is noted that the condition parameters are specific to the RLP layer which is lower than the TAS and application layer (see fig 2).

Sen further discloses the TAS layer uses the values for the transmitting conditions to control processing of the data for transmission by caching, re-transmitting and to transfer at a full transfer rate in accordance with the transmission conditions (see col 8 line 47 – col 9 line 67, col 8 lines 47 – 67) and thus discloses the claimed deriving one or more values of one or more video control parameters usable at a first layer from said value of at least one transmission condition parameter and performing controlling of the processing of video data in accordance with the derived one or more values.”

Sen fails to teach processing video data including coding or transcoding of video data at the application layer.

In analogous art, Paul teaches a layered video multicast TCP/IP transmission system in which video data is coded at the application layer (see col. 2 lines 60 – 67). It would have been obvious coding video data at the application layer would have enabled transmission of video data thereby providing access to an additional type of media. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Sen to include the claimed limitation for the benefit of providing access to an additional type of media.

**Regarding claim 2,** Sen discloses the predetermined Internet link 205 (see fig. 2).

**Regarding claims 3 and 19,** Sen discloses the parameters are acquired at the WAG 203 or sending side of the link (see fig. 2).

**Regarding claims 4 and 18,** Sen discloses the claimed radio link (see col 6 lines 12 – 44).

**Regarding claims 5 and 20**, Sen discloses the claimed application layer as met by TAS and the claimed link layer as met by RLP (See col 9 lines 1 – 28).

**Regarding claims 6, 21 and 33**, Sen discloses the claimed wireless communication network with a base station 203 in the wireless communication network (see fig 2, see col 6 lines 12 – 44).

**Regarding claims 8 and 26**, Sen fails to disclose the claimed wherein the processing of video data comprises the forward error correction of the video data.

Official Notice is taken that the use of forward error correction is notoriously well known to provide a reliable means of communication by preventing packet loss as admitted by Applicant's on page 2 of the specification. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Sen to include the claimed limitation to provide a more reliable means for communication.

**Regarding claims 9 and 27**, the combination of Sen and Paul teach the claimed limitation, wherein Sen discloses the packetization of data (see col 9 lines 18 – 52, col 7 lines 16 – 49) and Paul discloses the claimed video data (see col. 2 lines 60 – 67).

**Regarding claims 10 and 28**, Sen discloses the claimed current transmission delay of the link – see col 9 lines 18 – 52),

**Regarding claims 11 and 29**, Sen fails to disclose the claimed transmission parameters are selected from current power-level on the radio link.

Official Notice is taken detecting the power-level of a transmission link is a well known means for controlling the transmission of data to ensure optimum transmission of



data. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Sen to include the claimed limitation to ensure optimum transmission of data.

**Regarding claims 14 – 15**, Sen inherently discloses the claimed digital computer device with computer program code and software code needed for performing the method of claim 1.

**Regarding claim 17**, Sen discloses TAS is part of the entire ‘control element’ residing in WAG 203 (see fig 2) for controlling the transmission of data over a predetermined link forming part of a connection where one or more transmission condition parameters are indicative of a transmission condition associated with said predetermined link (see claim 2).

**Regarding claim 22**, the combination of Sen and Paul teach the claimed limitation, wherein Sen discloses the processing element, acquisition element and element for deriving values of control parameters are all providing in WAG 203 (see col 6 lines 12 – 43) and Paul discloses the claimed video data.

**Regarding claim 23**, Sen discloses the different layers or groups and thus discloses the different units.

**Claim 25** is met by the above discussions.

**Claims 12, 13, 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sen et al (US 6,208,620) in view of Paul, as applied to the claims above, and further in view of Li (US 6,275,531).**

**Regarding claims 12, 13, 30 and 31**, the combination of Sen and Paul fails to disclose the claimed transmitting data in scalable form by having a base stratum bit stream and at least one enhancement stratum bit stream, and by deciding on the inclusion or exclusion of said enhancement stratum in the transmitted data on the basis of the derived one or more values of one or more video control parameters.

In analogous art, Li scalable video coding method and apparatus comprising multiple bitstreams including a base layer bitstream and enhancement layer bitstream. Li further teaches the base layer is always transmitted and that the number of enhancement layers transmitted is determined or limited by the network that provides the transmission channel and particularly discloses "While the base layer bitstream is always transmitted to the destination point, the same is not necessarily true for the enhancement layers" (see col 3 lines 11 – 27). Li further teaches prioritizing the transmission of data due to the characteristics and bandwidth of the network (see col 3 lines 28 – 43).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combination of Sen and Paul to include the claimed limitation to provide maximum system efficiency by efficiently optimizing bandwidth usage and network and system capabilities.

***Allowable Subject Matter***

**Claim 24** is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Jung et al (6,421,735) – Automatically selecting a network port

Heeren et al (6,311,288) – Virtual circuit backup

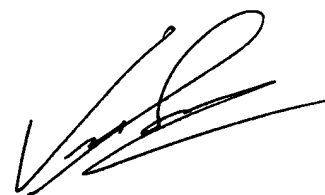
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vivek Srivastava whose telephone number is (571) 272-7304. The examiner can normally be reached on Monday – Friday from 9 am to 6 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (571) 272 – 7331. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2623

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Vs  
6/26/06

A handwritten signature in black ink, appearing to read 'Vivek Srivastava', with a stylized flourish extending from the end.

**VIVEK SRIVASTAVA  
PRIMARY EXAMINER**